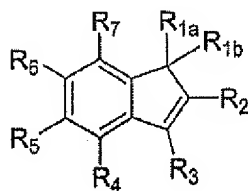


WHAT IS CLAIMED IS:

1. An indene derivative of formula (I) or a pharmaceutically acceptable salt thereof:

5



(I)

wherein,

R_{1a} is OH or H;

R_{1b} is C_{1-6} alkyl, C_{3-6} cycloalkyl, benzyl or phenyl, the phenyl being
 10 optionally substituted with one or more substituents selected from the group consisting of halogen, CN, NH_2 , NO_2 and OR^a , when R_{1a} is OH; when R_{1a} is H,

R_{1b} is OR^a , NR^bR^c , $NHCOR^a$ or $\text{---}\frac{1}{3}\text{---}N\text{---}\frac{1}{3}\text{---}R^d$;

R_2 is CN, CO_2R^a or $CONR^eR^f$;

R_3 is phenyl optionally substituted with one or more substituents selected
 15 from the group consisting of halogen, CN, NH_2 , NO_2 , OR^a and C_{1-6} alkyl; and

R^4 , R^5 , R^6 and R^7 are each independently H, $O(CH_2)_mR^g$ or CH_2R^h ;

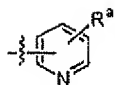
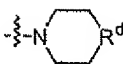
in which

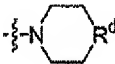
R^a is H, C_{1-6} alkyl or C_{3-6} cycloalkyl, the C_{1-6} alkyl and C_{3-6} cycloalkyl
 being optionally substituted with one or more halogens;

R^b , R^c , R^e and R^f are each independently H, C_{1-6} alkyl, C_{3-6} cycloalkyl or
 20 benzyl;

R^d is O, S or NR^a ;

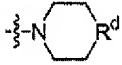
- 56 -

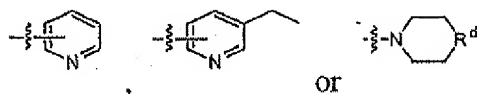
R^g is H, , , or phenyl, the phenyl being optionally substituted with one or more substituents selected from the group consisting of halogen, CN, NH₂ and NO₂;

R_h is ; and

5 m is an integer in the range of 1 to 3.

2. The compound of claim 1, wherein R_{1b} is C₁₋₆ alkyl, C₃₋₆ cycloalkyl, benzyl or phenyl, the phenyl being optionally substituted with one or more methoxy groups,

when R_{1a} is OH; when R_{1a} is H, R_{1b} is OR^a, NR^bR^c, NHCOR^a or ; R_3 is
10 phenyl being optionally substituted with one or more halogens or C₁₋₄ alkyls; and
 R_4 and R_7 is H, in which R^a is H or C₁₋₆ alkyl; R^d is O or S; R^g is H, phenyl,



3. The compound of claim 1, wherein R_3 is phenyl, R_5 is H, and R_6 is O(CH₂)_mR^g
15 or CH₂R^h.

4. The compound of claim 1, which is selected from the group consisting of:

1-hydroxy-6-methoxy-1,3-diphenyl-1H-indene-2-carboxylic acid ethyl ester,

20 1-hydroxy-6-methoxy-1-(3-methoxy-phenyl)-3-phenyl-1H-indene-2-carboxylic acid ethyl ester,

1-hydroxy-1-isopropyl-6-methoxy-3-phenyl-1H-indene-2-carboxylic acid ethyl ester,

1-hydroxy-6-methoxy-1-methyl-3-phenyl-1H-indene-2-carboxylic acid

- ethyl ester,
1-benzyl-1-hydroxy-6-methoxy-3-phenyl-1H-indene-2-carboxylic acid
ethyl ester,
1-cyclohexyl-1-hydroxy-6-methoxy-3-phenyl-1H-indene-2-carboxylic acid
5 ethyl ester,
1-hydroxy-1,3-diphenyl-6-(3-phenyl-propoxy)-1H-indene-2-carboxylic
acid ethyl ester,
1-hydroxy-6-(2-morpholine-4-yl-ethoxy)-1,3-diphenyl-1H-indene-2-
carboxylic acid ethyl ester,
10 1-hydroxy-6-morpholine-4-yl-methyl-1,3-diphenyl-1H-indene-2-
carboxylic acid ethyl ester,
1-hydroxy-1,3-diphenyl-6-(2-pyridine-2-yl-ethoxy)-1H-indene-2-
carboxylic acid ethyl ester,
1-hydroxy-1,3-diphenyl-6-(3-phenyl-propoxy)-1H-indene-2-
15 Carbonitrile,
1-hydroxy-1,3-diphenyl-6-(3-phenyl-propoxy)-1H-indene-2-carboxylic
acid methyl ester,
1-hydroxy-6-methoxy-1,3-diphenyl-1H-indene-2-carboxylic acid,
1-hydroxy-6-methoxy-1-methyl-3-phenyl-1H-indene-2-carboxylic acid,
20 1-benzyl-1-hydroxy-6-methoxy-3-phenyl-1H-indene-2-carboxylic acid,
1-hydroxy-1,3-diphenyl-6-(3-phenyl-propoxy)-1H-indene-2-carboxylic acid,
1-cyclohexyl-1-hydroxy-6-methoxy-3-phenyl-1H-indene-2-carboxylic acid,
1,6-dimethoxy-3-phenyl-1H-indene-2-carboxylic acid ethyl ester,
1-ethoxy-6-methoxy-3-phenyl-1H-indene-2-carboxylic acid ethyl ester,
25 1-amino-6-methoxy-3-phenyl-1H-indene-2-carboxylic acid ethyl ester,
1-amino-3-phenyl-6-(3-phenyl-propoxy)-1H-indene-2-carboxylic acid ethyl
ester,
1-amino-6-(2-morpholin-4-yl-ethoxy)-3-phenyl-1H-indene-2-carboxylic
acid cyclohexyl amide,
30 1-amino-3-phenyl-6-(3-phenyl-propoxy)-1H-indene-2-carbonitrile,

- 58 -

1-acetylamino-6-methoxy-3-phenyl-1H-indene-2-carboxylic acid ethyl ester,

6-methoxy-3-phenyl-1-propionylamino-1H-indene-2-carboxylic acid ethyl ester,

5 1-acetylamino-3-phenyl-6-(3-phenyl-propoxy)-1H-indene-2-carboxylic acid ethyl ester,

1-acetylamino-6-(2-morpholin-4-yl-ethoxy)-3-phenyl-1H-indene-2-carboxylic acid cyclohexyl amide,

1-diethylamino-6-methoxy-3-phenyl-1H-indene-2-carboxylic acid ethyl ester,

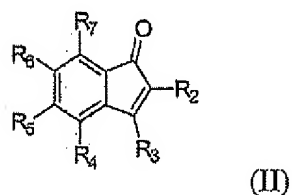
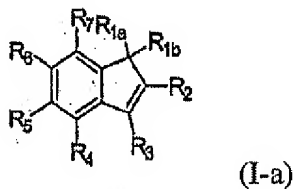
1-ethylamino-6-methoxy-3-phenyl-1H-indene-2-carboxylic acid ethyl ester,

6-methoxy-1-morpholin-4-yl-3-phenyl-1H-indene-2-carboxylic acid ethyl ester,

1-benzyl amino-6-methoxy-3-phenyl-1H-indene-2-carboxylic acid ethyl ester, and

1-cyclohexyl amino-6-methoxy-3-phenyl-1H-indene-2-carboxylic acid ethyl ester.

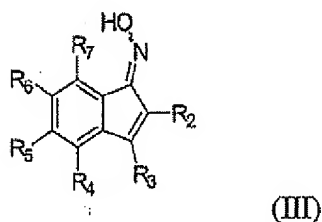
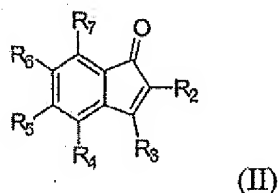
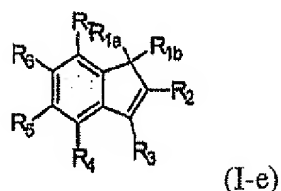
5. A process for preparing a compound of formula (I-a) which comprises
20 reacting a compound of formula (II) with a Grignard reagent:



wherein R_{1a} is OH; R_{1b} is alkyl, phenyl or benzyl; and R₂, R₃, R₄, R₅, R₆ and R₇ have

the same meaning as defined in claim 1.

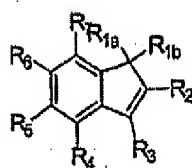
6. A process for preparing a compound of formula (I-e) which comprises reacting a compound of formula (II) with hydroxyl amine to obtain a compound of
 5 formula (III), and hydrogenation of the compound of formula (III) followed by reacting with acetyl chloride or an anhydrous acetic acid:



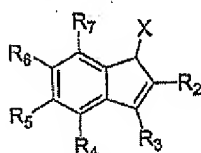
- 10 wherein R_{1a} is H; R_{1b} is NH_2 or $NHCOR^a$; and R_2 , R_3 , R_4 , R_5 , R_6 and R_7 have the same meaning as defined in claim 1.

7. A process for preparing a compound of formula (I-d) which comprises halogenation of a compound of formula (VIII) to obtain a compound of formula
 15 (IV), and reacting the compound of formula (IV) with an amine or alcohol compound:

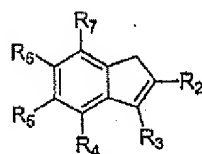
- 60 -




(I-d)



(IV)



(VIII)

wherein R_{1a} is H; R_{1b} is OR^a , NR^bR^c or ; X is halogen; and R_2 , R_3 , R_4 , R_5 , R_6 and R_7 have the same meaning as defined in claim 1.

8. A pharmaceutical composition for modulating the activities of peroxisome proliferator activated receptors (PPARs) comprising a therapeutically effective amount of the compound or a salt defined in claim 1 as an active ingredient together with a pharmaceutically acceptable carrier.

9. The composition of claim 8, which is used for the treatment and prevention of diabetes, obesity, arteriosclerosis, hyperlipidemia, hyperinsulinism, hypertension, osteoporosis, liver cirrhosis, asthma and cancer.